

Name: _____

Test Date: _____

GLOBAL CHANGE STUDY GUIDE

1. **Atmospheric composition:**

Nitrogen _____, Oxygen _____, Water vapor _____, Argon _____, & Carbon dioxide _____

2. Identify the differences in the **layers of the atmosphere:**

a. **Troposphere**

b. **Stratosphere**

Ozone Thinning

3. Identify how ozone is formed in the in the stratosphere and the importance of **ozone formation:**

4. Identify SIX effects of **UV radiation:**

a.

b.

c.

d.

e.

f.

5. Identify and describe the source of FOUR **ozone depleting chemicals:**

a.

b.

c.

d. **Chlorofluorocarbons (CFCs) –**

6. Identify the reactions that cause **ozone depletion:**

7. Describe a **Dobson Unit:**

8. Identify the current causes of ozone depletion:

9. Identify the term '**ozone hole**' and identify the time of year that the hole is most evident:

10. Describe **ozone recovery** and identify the time period that the hole will be largest:

11. Describe the **Montreal Protocol**:

Climate Change

12. Describe **global warming**:

13. Describe the cyclical pattern of **global climate change** and current pattern:

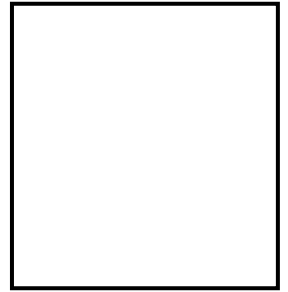
14. Describe the **greenhouse effect**:

Identify what causes 75% of the natural greenhouse effect: _____

15. Describe the **accelerated greenhouse effect**:

16. Identify FOUR **greenhouse gases** and the **sources** of those gases:

- a.
- b.
- c.
- d.



Use the box (right) to draw and label the **changes in atmospheric CO₂ since 1955**.

17. Describe **albedo** and the positive feedback mechanism associated with ice sheet melting:

18. Explain the following types of **prevention legislation**:

- a. **Kyoto protocol** –
- b. **Carbon credits and trading** –

19. Identify the processes of **carbon capture** and **carbon storage (sequestration)**:

20. Identify ONE effects of climate change on the following parts of the environment:

- a. **Coastal resources:**
- b. **Forests:**
- c. **Weather patterns:**
- d. **Water resources:**
- e. **Health:**
- f. **Agriculture:**

21. Use the chart to distinguish between **ozone depletion** and **global warming**.

22. Identify the FOUR causes of the **loss of biodiversity**:

a.

b.

c.

d.

23. Explain the **maintenance through conservation** of biodiversity on a local, regional, and global scale:

24. Define **extinction**:

Identify the THREE **types of extinction**: 1. _____, 2. _____, 3. _____

25. Identify THREE **characteristics of species vulnerable to extinction**:

26. Explain the connection between biodiversity and **stability**:

27. Identify the SIX main causes of the **loss of biodiversity** (HIPPCO):

H –

I –

P –

P –

C –

O –

28. Identify THREE countries with tropical deforestation: 1. _____ 2. _____ 3. _____

29. Identify THREE negative impacts from **deforestation**:

30. Define **invasive species**:

Identify and describe one accidentally introduced invasive species:

Identify and describe one introduced invasive species:

31. Describe the **Endangered Species Act** of 1973 and explain the provisions put in place by the ESA:

32. Describe the **Convention on International Trade of Endangered Species of Wild Flora and Fauna** (CITES):

33. Describe the difference between an **endangered species** and a **threatened species**:

34. Describe **overexploitation**:

35. Identify TWO **endangered** species and identify why they are endangered:

a.

b.

36. Explain **reconciliation ecology**:

37. Explain environmental **mitigation**:

38. Identify TWO **conservation** efforts:

a.

b.

39. Define **in situ**:

Ex situ:

40. Define **National Park**:

Describe the use and protection of national parks:

41. Describe **nature reserves** (National Wilderness Preservation Areas) and explain how they are different from National Parks: